

REMARKS

The claims of the present application have been subjected to restriction under 35 U.S.C. 121 as follows:

Group (1) - claims 1-14 and 17-19, drawn to an adsorbent bearing hydrogen-bondable functional groups and/or hydrophobic functional groups;

Group (2) - claims 15-19, drawn to an adsorbent bearing antibodies to an HMG protein;

Group (3) - claims 20-22, drawn to a column which contains an adsorbent according to Group 1;

Group (4) - claims 20-22, drawn to a column which contains an adsorbent according to Group 2;

Group (5) - claims 23-27, drawn to a method of using the Group 1 adsorbent to adsorb HMG proteins from body fluid;

Group (6) - claims 23-27, drawn to a method of using the Group 2 adsorbent to adsorb HMG proteins from body fluid.

In addition to the above-noted Restriction Requirement, applicants have been required to elect a disclosed species for prosecution based on the instructions indicated at pages 4-7 of the Requirement.

Response to Restriction Requirement

Applicants hereby elect Group (1), i.e. claims 1-14 and 17-19, with traverse.

Traversal of Restriction Requirement (Unity of Invention Requirement)

It is first noted that the above Restriction Requirement should actually be a "Unity of Invention" Requirement since the present application is a national phase PCT application. Note MPEP Chapter 1800. In this regard, it is submitted that the Restriction Requirement is improper for several reasons. First, it is noted that at least Groups (1), (3) and (5) should be examined together in view of the Administrative Instructions under the PCT, Annex B, Part 2 at page AI-67 of the MPEP. A copy of this page is attached and shows in Example 1 that the chemical substance "X" itself and the use of the substance X must be examined together. Likewise, in the present situation, the adsorbent, a method of using the adsorbent and a column containing the adsorbent should all be examined together in view of the presence of the special technical feature, the adsorbent, which is present in all of these embodiments. In addition, it is further submitted that Groups (2), (4) and (6) which are directed to embodiments employing an

adsorbent bearing antibodies to an HMG protein are sufficiently related to the more generically described adsorbent in the claims of Groups (1), (3) and (5). In this regard, it is submitted that there is no serious burden placed on the Examiner to examine all of the claims from all of Groups (1) - (6) such that the basis for the Unity of Invention Requirement should be withdrawn. The reasons stated in the Restriction Requirement based on arguments in MPEP Chapter 800 are misplaced.

Response to Election Requirement

Applicants elect the species (b)(i) of Group (1), i.e. the hydrogen-bondable functional group, with traverse. Claims readable thereon include claims 1, 7, 8, 13, 14, 17, 18, and 19.

In this regard, if further election is needed, applicants elect as the specific hydrogen-bondable functional group immobilized on the adsorbent the sulfate group as recited in claim 8. Still further, applicants elect the species wherein the hydrogen-bondable functional group is bonded directly to the water-insoluble carrier. Additionally, as the specific means of bonding of the functional group to the carrier, applicants elect cyanogens bromide activation. The thus elected species is readable on claims

1, 7, 8, 13, 14, 17, 18, and 19. All these elections are made with traverse.

Traversal of Election Requirement

The above-noted Election Requirement is respectfully traversed. Attention is directed to the Administrative Instructions under the PCT at page AI-71 (copy attached) with regard to "Markush Practice" under the Unity of Invention standards. It is noted in Example 18 that a compound generic formula having various different heterocyclic groups for R<sup>1</sup> nevertheless is deemed to encompass a common structure because of the presence of an indolyl structure in all of the claimed compounds. Likewise, in the present situation, the adsorbent has hydrogen-bondable functional groups and/or hydrophobic functional groups immobilized thereon which is a feature shared by all of the embodiments of the present invention, such that a common element exists and unity is present. It is further noted that there is no specific basis identifying any undue burden placed on the Examiner for searching all of the species encompassed by the present claims. Therefore, it is requested that the Election Requirement also be withdrawn.

Appl. No. 09/980,624  
Attorney Docket Number 0760-0298P

It is submitted for the reasons stated above that the present claims define patentable subject matter such that this application should now be placed condition for allowance.

If any questions arise regarding the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 

Andrew D. Meikle, #32,868

ADM:gmh  
0760-0298P

P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000

Enclosures: Copies of pages AI-67 and AI-71 of PCT Administrative Instructions, Annex B

**[ANNEX B, CONTINUED]**

**PART 2**

**EXAMPLES CONCERNING UNITY OF INVENTION**

The application of the principles of unity of invention is illustrated by the following examples for guidance in particular cases.

**I. CLAIMS IN DIFFERENT CATEGORIES**

**Example 1**

Claim 1: A method of manufacturing chemical substance X.

Claim 2: Substance X.

Claim 3: The use of substance X as an insecticide.

Unity exists between claims 1, 2 and 3. The special technical feature common to all the claims is substance X.

**Example 2**

Claim 1: A process of manufacture comprising steps A and B.

Claim 2: Apparatus specifically designed for carrying out step A.

Claim 3: Apparatus specifically designed for carrying out step B.

Unity exists between claims 1 and 2 or between claims 1 and 3. There is no unity between claims 2 and 3 since there exists no common special technical feature between the two claims.

**Example 3**

Claim 1: A process for painting an article in which the paint contains a new rust inhibiting substance X including the steps of atomizing the paint using compressed air, electrostatically charging the atomized paint using a novel electrode arrangement A and directing the paint to the article.

Claim 2: A paint containing substance X.

Claim 3: An apparatus including electrode arrangement A.

Unity exists between claims 1 and 2 where the common special technical feature is the paint containing substance X or between claims 1 and 3 where the common special technical feature is the electrode arrangement A.

However, unity is lacking between claims 2 and 3 since there exists no common special technical feature between them.

**Example 4**

Claim 1: Use of a family of compounds X as insecticides.

Claim 2: Compound X<sub>1</sub> belonging to family X.

Provided X<sub>1</sub> has the insecticidal activity and the special technical feature in claim 1 is the insecticidal use, unity is present.

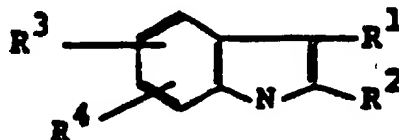
## ADMINISTRATIVE INSTRUCTIONS UNDER THE PCT

Expression of the DNA sequence in a host results in the production of a protein which is determined by the DNA sequence. The protein and the DNA sequence exhibit corresponding special technical features. Unity between claims 1 and 2 is accepted.

### III. MARKUSH PRACTICE

**Example 18**— common structure:

Claim 1: A compound of the formula:

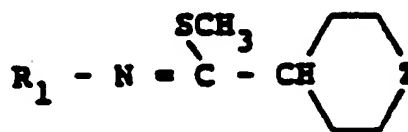


wherein R<sup>1</sup> is selected from the group consisting of phenyl, pyridyl, thiazolyl, triazinyl, alkylthio, alkoxy, and methyl; R<sup>2</sup>-R<sup>4</sup> are methyl, benzyl, or phenyl. The compounds are useful as pharmaceuticals for the purpose of enhancing the capacity of the blood to absorb oxygen.

In this case the indolyl moiety is the significant structural element which is shared by all of the alternatives. Since all the claimed compounds are alleged to possess the same utility, unity is present.

**Example 19**— common structure:

Claim 1: A compound of the formula:



wherein R<sub>1</sub> is selected from the group consisting of phenyl, pyridyl, thiazolyl, triazinyl, alkylthio, alkoxy, and methyl; Z is selected from the group consisting of oxygen (O), sulfur (S), imino (NH), and methylene (-CH<sub>2</sub>-). The compounds are alleged to be useful as pharmaceuticals for relieving lower back pain.

In this particular case the iminothioether group -N=C-SCH<sub>3</sub> linked to a six atom ring is the significant structural element which is shared by all the alternatives. Thus, since all the claimed compounds are alleged to possess the same use, unity would be present. A six membered heterocyclic ring would not have been of sufficient similarity to allow a Markush grouping exhibiting unity, absent some teaching of equivalence in the prior art.

**Example 20**— common structure

Claim 1: A compound of the formula:

